DOCUMENT RESUME

ED 115 053 EC 080 588

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TITLE Results on the Slosson Drawing Coordination Test with Appalachian Sheltered Workshop Clients.
PUB DATE [75]
NOTE 9p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS Adults; Clinical Diagnosis; Exceptional Child Research; Handicapped Children; *Labeling (of Persons); *Minimally Brain Injured; *Screening Tests; Sheltered Workshops; *Test Validity; Young Adults

ABSTRACT

Fifty-four clients (13- to 52-years-old) in an Appalachian sheltered workshop were administered the Slosson Drawing Coordination Test (SDCT) and the Bender Visual Motor Gestalt Test. Twenty-nine Ss were labeled possibly brain damaged by the SDCT, and 17 Ss by the M. Hutt scoring system for the Bender-Gestalt. Two psychologists using all available data and clinical judgment classified only 13 in a similar category. Results indicated the need for caution in using the SDCT as a screening instrument for brain damage among Appalachian clients. (Author)

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Results on the Slosson Drawing Coordination Test with Appalachian Sheltered Workshop Clients

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EC 010588

The Slosson Drawing Coordination Test (Slosson, 1967) has been introduced as a method of screening and identifying individuals with various forms of brain dysfunction where eye-hand coordination is involved. This drawing test is untimed and consists of 12 geometric figures which are copied three times each. The number of figures attempted, varies depending upon the age of the examinee. The test can be used with both children and adults from the age of one year or above. The Slosson Drawing Coordination Test (SDCT) is described as a supplement to the Slosson Intelligence Test (Slosson, 1963). Both tests seem to be growing in popularity with teachers, school psychologists, and mental health workers as quick screening devices. The scoring of each item on the SDCT is either plus or minus according to stated criteria provided in a manual. An accuracy score below 85 percent correct is interpreted as an indicator of possible brain damage.

Research on the SDCT is sparse, and to date only one study, other than the developer's work, could be located with regard to the test's validation. Reviews contained in the Seventh Mental Measurements Yearbook (Buros, 1972) suggest that the SDCT be used with great care as a diagnostic tool, and the consensus seemed to be that the test's author has not furnished sufficient data to demonstrate that it is a valid instrument with regard to the identification of brain damage. Alcorn and Nicholson (1972) found moderate correlations for the SDCT with several other tests recognized as aids in diagnosing visual-perceptual or motor

coordination problems with adolescents of below-average ability. They suggested that the Slosson be used only for gross screening purposes.

The purpose of this study was to investigate the relationship between performance on the SDCT and performance on the Bender Visual Motor Gestalt Test (Bender, 1946) with a selected Appalachian sample. The Bender was scored for indicators of possible brain damage according to the Hutt scoring system (Hutt, 1969). Finally, the Slosson and Bender performances were compared with the clinical interpretations of two psychologists who had access to all materials and records on the selected clients.

Method

Subjects

This sample included all clients in a sheltered workshop operated by the Kentucky Department of Vocational Rehabilitation. There were 31 males and 23 females ranging in age from 13 to 52 years, with a mean age of about 22 years. Intelligence quotients were obtained from the clients' records, and I.Q. scores ranged from 30 to 115 with a mean score of 73.35. These scores were obtained from several different intelligence measures that had been administered prior to entry into the workshop. All of these clients had demonstrated some difficulty in adapting to society or to educational settings and had been placed at the workshop to learn both work and social skills. The primary diagnoses for the clients ranged from mental retardation to psychological disturbances, but all were functioning adequately

in the workshop environment. Additionally all of these clients had experienced disrupted home environments and social and cultural deprivation.

Procedure

The Bender Visual Motor Gestalt Test and the SDCT were administered to each client individually by a certified psychologist. Following these administrations, the SDCT and Bender-Gestalt performances were scored by the certified psychologist. Clinical interpretations of the test performances were made by two other psychologists who also had access to supporting psychological, medical, and psychiatric data. These psychologists were also familiar with the test performances of the culturally disadvantaged found in the Appalachian Kentucky area.

Hutt's scoring category of "Intracranial Damage" was used which includes 11 primary and two secondary pathological indicators. According to this scoring system anyone exhibiting five or more of these indicators in their Bender productions is considered likely to have a neurological dysfunction.

Results

Following evaluation of all test performances and records, there was unanimous agreement by the two clincians that thirteen of the 54 clients sampled revealed a strong liklihood of neurological dysfunction. By use of the Hutt scoring system alone, seventeen, including all of the aforementioned 13 subjects, were defined as manifesting "intracranial damage." Based upon their performances on the SDCT, twenty-nine of these subjects including all of the seventeen identified by the Hutt approach, performed at an accuracy score below eighty-five percent, thus

categorizing them as possibly brain damaged.

Product moment correlations for ungrouped data (Garrett, 1966) were performed. The clinical interpretations of performances and records and the results obtained by means of the Hutt scoring system were found to have a very high correlation of .82. The correlations obtained when a comparison was made between clinical interpretations and the findings of the SDCT was .54; while the correlation between performances scored by the Hutt system and those obtained on the SDCT was .63.

There were no significant differences in the number of males or females assigned to the brain damaged category by either the Hutt scoring approach (9 males, 8 females) or the SDCT (14 males, 15 females). Clinical judgments identified five males and eight females as possibly brain damaged but this difference also was non-significant (Chi Square = .686).

Discussion

This study of the SDCT was an attempt to investigate its effectiveness in screening for possible brain damage in a culturally disadvantaged Appalachian population. Performance on the SDCT was compared to two other typical techniques for assessing possible brain damage: 1) Performance on the Bender-Gestalt and 2) clinical judgment of professional psychologists. Clinical judgments were made in this case after reviewing all available data including performances on the Bender-Gestalt and SDCT. Therefore, one might speculate that these clincial assessments of brain damage were more valid because they were based on more

evidence than either the SDCT or the Bender-Gestalt alone. The findings based on the well-researched Hutt scoring system correlated significantly high with the clinical interpretations. The results on the SDCT have lower but significant correlations with both the clinical and Hutt findings. It is also interesting to note that the clinical judgments produced the most conservative estimate of brain damage, followed by the Hutt scoring approach to the Bender-Gestalt. The SDCT was consistently more likely to assign the client to a brain-damaged category.

It is undoubtedly important for school psychologists and other mental health professionals to be able to make some estimate of the probability of brain damage. However, in this sample of 54 clients admitted to a sheltered workshop in an Appalachian area, superficial screening procedures with the SDCT suggest an unusually large number to be brain damaged. Clinical judgment made a diagnosis of about 24 percent brain-damage, the Hutt Bender-Gestalt system about 31 percent, and the SDCT about 54 percent. It is possible that economic and social deprivation and other experiences common to these Appalachian clients adversely affected their performance on these selected instruments. However, the sample did represent a clinical group.

None of the three approaches used to identify brain-damage, distinguished significantly between male and female subjects although there was some tendency for clinicians to assign this label to more females than males. The thirteen clients identified as possibly brain-damaged by the clinicians were selected as brain-damaged by both the SDCT and the Hutt Bender-Gestalt. The findings of this study seem to lend support to those of Alcorn

and Nicholson and the opinions expressed in the Seventh Mental Measurements Yearbook. The diagnosis of brain damage is a difficult and complicated matter, and such diagnoses via the use of any type of screening test should be made with caution and supportive data. The Slosson Drawing Coordination Test is such a test that should not be viewed as a definitive method of diagnosing brain damage. The test should be viewed as one method of screening, but one which should be used with great care particularly when dealing with culturally-disadvantaged clients. The SDCT needs to be researched much more extensively as use is apparently continuing to increase.

References

Alcorn, C. L. & Nicholson, C. L. Validity of the Slosson Drawing Coordination Test with adolescents of below-average ability. Perceptual and Motor Skills, 1972, 34, 261-262.

Bender, L. Bender Motor Gestalt Test. New York: American Orthopsychiatric Association, 1946.

Buros, O. K. (Ed.) The Seventh Mental Measurements Yearbook. Highland Park, New Jersey: Gryphon Press, 1972, 334-335.

Garrett, H. E. Statistics in Psychology and Education. New York: David McKay, 1966.

Hutt, M. L. The Hutt Adaptation of the Bender-Gestalt Test. New York: Grune and Stratton, 1969.

Slosson, R. L. Slosson Intelligence Test for Children and Adults. East Aurora, New York: Slosson Educational Publications, 1963.

Slosson, R. L. Slosson Drawing Coordination Test for Children and Adults. East Aurora, New York: Slosson Educational Publications, 1967.